



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,714	02/10/2004	Shu-Liang Nin	13732.10USD1	2803
23552	7590	08/08/2006	EXAMINER	
MERCHANT & GOULD PC			LE, THAO P	
P.O. BOX 2903			ART UNIT	
MINNEAPOLIS, MN 55402-0903			PAPER NUMBER	

2818

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

23

Office Action Summary	Application No. 10/776,714	Applicant(s) NIN, SHU-LIANG	
	Examiner Thao P. Le	Art Unit 2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-11, 14 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-11, 14, 20-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Examiner took notice of amendment and remarks made on 07/12/2006.

The remarks in view of amendment claims are fully considered and found persuasive.

Claim 9 has been amended.

Claims 20-22 are newly added.

Claims 9-11, 14, 20-22 are pending in this application.

Applicants request for continued examination on 07/12/2006 is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the

United States and was published under Article 21(2) of such treaty in the English language.

Claims 9-10 are rejected under 35 USC 102 (e) as being anticipated by Yamaguchi, U.S. Pub. No. 2003/0038367.

Regarding claim 9, Yamaguchi discloses a probe pad 105 on a semiconductor circuit 101 for electric characteristic measurement, wherein an exposed portion of the probe pad has a mark shape contour 107 to indicate the relative location of the probe pad on the semiconductor circuit (Fig. 16; mark shape is used to identify the direction of packaging, location of the circuit by identify the location of the mark 107 on the circuit, [0069-0070; [0073-0074]]).

Regarding claim 10, Yamaguchi discloses wherein the mark-shaped contour is a shape showing relative position with each other (Fig. 17).

Claims 9-11, 20-22 are rejected under 35 USC 102 (e) as being anticipated by Ulrich, U.S. Patent No. 6,864,589.

Regarding claims 9, 20, Ulrich discloses a probe pad 55, 56, 58, 60 on a semiconductor circuit 50 for electric characteristic measurement, wherein an exposed portion of the probe pad and the entirety of the probe pad has a mark shape contour (the shape of the marks 55, 56, 58, and 60 is contour) to indicate the relative location of the probe pad on the semiconductor circuit (Figs. 2, 13-14, Ulrich discloses the probe pad is used for measurement guides such as centerline, direction, and alignment, lines

19-25, Col. 2, thus, the location of probe pad is inherently indicated in order to be measurement guides such as alignment).

Regarding claims 10 and 21, Ulrich discloses wherein the mark-shaped contour is a shape showing relative positions with each other (see Figs. 2).

Regarding claims 11 and 22, Ulrich discloses the mark-shaped contour is the same as the shaped disclosed in claims 11 and 22 (See Figs. 13-14, the shape of a cross).

Claims 9-11, 20-22 are rejected under 35 USC 102 (e) as being anticipated by Rumsey et al., U.S. Patent No. 6,668,449.

Regarding claims 9, 20, Rumsey discloses a probe pad 54 on a semiconductor circuit 52 (Fig. 4) for electric characteristic measurement, wherein an exposed portion of the probe pad and the entirety of the probe pad has a mark shape contour (the shape of the mark 54 is contour) to indicate the relative location of the probe pad on the semiconductor circuit (Fig. 4, lines 20-65, Col. 6; Rumsey discloses the probe pad is used for alignment, thus, the location of probe pad inherently indicated in order to be an alignment fiducial).

Regarding claims 10 and 21, Rumsey discloses wherein the mark-shaped contour is a shape showing relative positions with each other (see Figs. 4).

Regarding claims 11 and 22, Rumsey discloses the mark-shaped contour is the same as the shaped disclosed in claims 11 and 22 (See Fig. 4, the L shape).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ulrich, U.S. Patent No. 6,864,589 in view of Liu et al., U.S. Patent No. 6,251,694.

Regarding claim 14, Ulrich fails to disclose the probe pad 55, 56, 58, 60 is made of an alloy of aluminum and copper or an alloy of aluminum, copper, and silica. Liu discloses the probe pad 32 is made of an alloy of aluminum and copper or an alloy of aluminum, copper, and silica (lines 65-67, Col. 4; lines 1-9, Col. 5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the probe pad with materials such as an alloy of aluminum and copper or an alloy of aluminum, copper, and silica as taught in Liu as the probe pad of Ulrich in order to be electrically conductive since the probe pad also acts as bonding pad in the semiconductor circuit.

When responding to the office action, Applicants' are advice to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to become abandoned (see M.P.E.P 710.02(b)).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao P. Le whose telephone number is 571-272-1785. The examiner can normally be reached on M-T (7-6).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/776,714
Art Unit: 2818

Page 7

A handwritten signature in black ink, appearing to read 'Thao P. Le'. The signature is fluid and cursive, with the first letter 'T' being large and stylized.

Thao P. Le
Primary Examiner
Art Unit 2818
August 4, 2006.